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10/731,137	12/10/2003	Yi-Cheng Yuan	YUAN3008/EM	4784

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EXAMINER

FERGUSON, MICHAEL P

ART UNIT PAPER NUMBER

3679

DATE MAILED: 01/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/731,137

**Applicant(s)**

YUAN ET AL.

**Examiner**

Michael P. Ferguson

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                                       |                                                                                        |
|-----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                           | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____                                                |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 2, 3, 5, 7 and 10 are objected to because of the following informalities:

Claim 2 (line 1) recites "wherein the free section of the resilient sheet". It should recite --wherein the free section of each resilient sheet--.

Claim 3 (line 1) recites "wherein the resilient sheet". It should recite --wherein each resilient sheet--.

Claim 5 (line 2) recites "and mounted". It should recite --and are mounted--.

Claim 7 (line 3) recites "each resilient are". It should recite --each resilient sheet are--.

Claim 10 (line 1) recites "wherein the resilient sheet". It should recite --wherein each resilient sheet--.

For the purpose of examining the application, it is assumed that appropriate correction has been made.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Birch et al. (US 4,687,446).

As to claim 1, Birch et al. disclose a fastening structure for a connector **15**, comprising:

a substrate **27**;

an inserting hole, formed through the substrate; and

a plurality of resilient sheets, formed along an inner periphery of the inserting hole, wherein each resilient sheet has a free section (Figures 1 and 3).

As to claim 2, Birch et al. disclose a fastening structure wherein the free section of the resilient sheet is a curved free section and has an angle between the free section and the substrate **27** (Figures 1 and 3).

As to claim 3, Birch et al. disclose a fastening structure wherein the resilient sheet is integrally formed with the substrate **27** (Figure 1).

As to claim 4, Birch et al. disclose a fastening structure wherein the inserting hole has a rectangular cross-section taken in a radial direction (Figure 1).

As to claim 5, Birch et al. disclose a fastening structure wherein the resilient sheets respectively have an arc shape and are mounted inside the inserting hole so that arc edges of the resilient sheets and an inner periphery of the inserting hole define an arc opening (Figure 1).

As to claim 6, Birch et al. disclose a fastening structure wherein the inserting hole has a polygonal cross-section taken in a radial direction (Figure 1).

As to claim 7, Birch et al. disclose a fastening structure wherein one edge of each resilient sheet and the inner periphery of the inserting hole define an arc opening,

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while remaining portions of each resilient sheet are located outside the inserting hole (Figure 1).

As to claim 8, Birch et al. disclose a fastening structure wherein the free sections curve in opposition to the connector **15** (Figures 1 and 3).

As to claim 9, Birch et al. disclose a fastening structure wherein the distance between the free sections is slightly smaller than the diameter of (portions of) the connector **15** (Figure 3).

As to claim 10, Birch et al. disclose a fastening structure wherein each resilient sheet engages with an indentation **28** of the connector **15** (Figure 3).

As to claim 11, Birch et al. disclose a fastening structure wherein the resilient sheets curve toward the connector **15** (Figure 3).

As to claim 12, Birch et al. disclose a fastening structure wherein the distance between the free sections is slightly larger than the diameter of (portions of) the connector **15** (Figure 3).

As to claim 13, Birch et al. disclose a fastening structure wherein the inserting hole has an approximately round hole (Figure 1).

4. Claims 1-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Kuo (US 6,083,041).

As to claim 1, Kuo discloses a fastening structure for a connector **1**, comprising:  
a substrate **3**;  
an inserting hole, formed through the substrate; and

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a plurality of resilient sheets **32**, formed along an inner periphery of the inserting hole, wherein each resilient sheet has a free section **33** (Figure 1).

As to claim 2, Kuo discloses a fastening structure wherein the free section **33** of each resilient sheet **32** is a curved free section and has an angle between the free section and the substrate **3** (Figure 1).

As to claim 3, Kuo discloses a fastening structure wherein each resilient sheet **32** is integrally formed with the substrate **3** (Figure 1).

As to claim 4, Kuo discloses a fastening structure wherein the inserting hole has a rectangular cross-section taken in a radial direction (Figure 1).

As to claim 5, Kuo discloses a fastening structure wherein the resilient sheets **32** respectively have an arc shape and are mounted inside the inserting hole so that arc edges **33** of the resilient sheets and an inner periphery of the inserting hole define an arc opening (Figure 1).

As to claim 6, Kuo discloses a fastening structure wherein the inserting hole has a polygonal cross-section taken in a radial direction (Figure 1).

As to claim 7, Kuo discloses a fastening structure wherein one edge of each resilient sheet **32** and the inner periphery of the inserting hole define an arc opening, while remaining portions of each resilient sheet are located outside the inserting hole (Figure 1).

As to claim 8, Kuo discloses a fastening structure wherein the free sections **33** curve in opposition to the connector **1** (Figure 1).

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As to claim 9, Kuo discloses a fastening structure wherein the distance between the free sections **33** is slightly smaller than the diameter of (portions of) the connector **1** (Figure 1).

As to claim 10, Kuo discloses a fastening structure wherein each resilient sheet **32** engages with an indentation of the connector **1** (Figure 1).

As to claim 11, Kuo discloses a fastening structure wherein the resilient sheets **32** curve toward the connector **1** (Figure 1).

As to claim 12, Kuo discloses a fastening structure wherein the distance between the free sections **33** is slightly larger than the diameter of (portions of) the connector **1** (Figure 1).

As to claim 13, Kuo discloses a fastening structure wherein the inserting hole has an approximately round hole (Figure 1).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure. The following patents show the state of the art with respect to fastening structures:

Hasegawa (US 5,707,193), Reichle (US 4,738,626), Schmitt (US 2,352,126) and Iwata et al. (US 6,095,855) are cited for pertaining to structures comprising a substrate having an inserting hole and a plurality of resilient sheets.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Ferguson whose telephone number is (703)308-8591. The examiner can normally be reached on M-F (7:30-4:30).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (703)308-2686. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
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